DARPA-BAA-14-59

Simplifying Complexity in Scientific Discovery (SIMPLEX) Frequently Asked Questions (FAQs) as of 9/19/14

1. What is the total program budget? How is it split between TA1 and TA2? How many awards in each TA, and size of the awards?

Per Section II.A of the BAA, the budget, and the number and size of awards in each TA depend on the quality of proposals received. Multiple awards are expected in each TA. You should propose your best ideas following all guidelines in the proposal, breakdown your overall effort into meaningful tasks, and provide cost for each task. DARPA may select proposals in their entirety for negotiation or only certain proposed tasks.

2. How many investigators/sites per project is appropriate? Is one large project with both TA1 and TA2 aspects preferred vs. two separate projects by disjoint teams addressing only TA1 and TA2?

There is no preference. The best technical solution is sought.

- 3. Are two abstracts allowed to link each other? Yes.
- 4. If we are submitting a proposal for TA1+TA2, should the cost proposal have separate costs for each TA?

Yes, but include in the cost volume an explanation of potential cost efficiencies realized by awarding multiple TAs.

5. Can an organization submit as a partner/sub on more than one proposal submission? What happens if both proposals win?

Yes. However, should both proposals be selected, the Statements of Work would most likely need to be negotiated to ensure there is no duplication of effort.

6. Does DARPA anticipate awarding any grants under DARPA-BAA-14-59? If so, will a grant be considered an Other Transaction Agreement, which will need to be submitted via the DARPA/DSO Solicitation Submission System?

Per the BAA, DARPA does not anticipate awarding grants for this effort. DARPA will consider proposals for cooperative agreements, which are similar to grants, but differ in that substantial involvement between the government agency and the recipient will occur. Proposals for cooperative agreements should be submitted in accordance with Section IV.E.1.c of the BAA.

- 7. If a cooperative agreement is requested, will cost share be required for that mechanism, or will cost share still be considered voluntary?
 - Cost sharing is not required for cooperative agreement proposals.
- 8. Would different colleges and departments of a university be able to make independent proposal submissions to the different technical areas? Would you accept more than one application from a single university for a single technical area, even if the investigators were in the same department, because separate investigators working in separate labs would

constitute separate entities? Is a university or a department limited to one proposal per technical area?

Separate research groups at universities represent separate entities and, thus, each research group is allowed to submit their own individual proposal towards Technical Areas 1 and/or 2.

9. What type of collaborations are recommended or expected in the SIMPLEX program? Public or private, Govt. or academia, or any others?

There is no preference.

10. Can I propose a non-US academic partner/consultant as subcontractor?

Per Section III.A.2 of the BAA, non-U.S. organizations and/or individuals may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.

11. For a combined TA1 + TA2 proposal, must the full team be specified at proposal time or is it permissible to have placeholders to add co-PI's and research scientists with appropriate expertise?

Placeholders are discouraged. Having information on the final team will lead to a stronger proposal.

12. Would a significant data collection be acceptable if it was not the key technical focus but rather a means to build a data model?

It depends on the timeline, domain, value, cost, and resources.

13. Does the TA1 work have to be general (i.e., applicable across domains) or can it be specific to the TA2 domain (but applicable to many use cases)?

The intention is demonstrate in more than one domain during course of the program.

- **14.** Can an organization propose part of TA2 (e.g., datafication only or discovery tools only)?

 Proposals need to address all the guidelines for the TA as specified in the BAA. Proposals should provide a collection of tasks, and cost for each task. DARPA reserves the right to pick a subset of the tasks for funding, if your proposal is selected for funding.
- 15. Was there a seedling effort defining the key components of the program? If so, who were the participants?

No, there was no seedling effort for this program.

- 16. What difference exists between SIMPLEX and Big Mechanism program of I2O?

 Please read the SIMPLEX BAA and review the Big Mechanism website

 (http://www.darpa.mil/Our Work/I2O/Programs/Big Mechanism.aspx) for descriptions of these programs.
- 17. Would SIMPLEX interact with other related DARPA programs (Big Mechanism, MDP, A2P, BRICS, etc.)? If so, how?

Many of these are complementary, and there might be some interaction with them; however, the ways are unknown. Many of these programs are just starting now. Proposals may include suggestions for leveraging products, when available.

18. What is the timing of the ACA (associate contractor agreement) or MOA (memorandum of agreement)? Does this have to be in place when the proposal is submitted, or after the performers are selected?

The ACA/MOA must be in place by program kickoff; it is not necessary at the time of proposal submission.

19. When is program kickoff expected?

Program kickoff will occur shortly after awards have been finalized (currently estimated for April 2015).

20. For TA2: Does one have to address/bid one and only one domain or can one bid multiple proposals?

Each TA2 proposal should only address one domain; additional proposals may be submitted for additional domains, but each proposal must stand on its own.

21. Can I propose multiple use cases for TA2 within a domain?

Proposals should ideally focus on a single use case which should be rich enough to capture the TA2 objectives; however, in some circumstances, multiple use cases within the same domain may make sense and are permitted.

22. If the opportunity exists for teaming with world class domain experts (e.g., in neuroscience), will the program support significant budget for domain expert involvement? Or, will domain experts be supported at a lower level, such as consultants?

Proposals will need to justify the work and rates of such experts in the proposal; we will evaluate the overall technical merit and cost realism as outlined in the BAA.

23. Will there be a down select between phases?

Although there is no mandatory reduction in the number of funded teams at specific points in the program schedule, continued funding is dependent on satisfactory progress on proposed and program milestones, including successful integration with other performers' efforts.

24. Is there open software from the beginning or is there a DARPA review involved prior to sharing?

DARPA's release of software (e.g., to the Open Catalog) will be after a review for quality within the program. This does not restrict performers from making their code publicly available through other channels more frequently, if desired.

- 25. Should the open source software licensing strategy be written in the proposal? Yes, it should be explicitly described in in the proposal.
- 26. Cyber-physical systems data from programs may have protected IP. Does DARPA require data to be openly accessible?

No, but per the BAA, if proposers desire to use proprietary software or technical data or both as the basis of their proposed approach, in whole or in part, they should: 1) clearly identify such software/data and its proposed particular use(s) and value to the program objectives; 2) explain how the Government will be able to reach its program goals within the proprietary model offered; and 3) provide possible nonproprietary alternatives in any area that might present transition difficulties or increased risk or cost to the Government under the proposed proprietary solution

27. Does DARPA have suggested patterns or templates for IP options? Since there are many possibilities for software licensing, some guidance about the range of possibilities would help. The program intends to have open source software development and deliverables. Apache V2, BSD, MIT License are some common examples. Per the BAA, if you are proposing something that

is not (or will not be) open source, the proposal must include a justification for why the Government should invest in the non-open source technology. DARPA does not provide suggested licensing templates for such mixed-licensing cases.

- 28. Will the evaluation exercises be structured around problems and data provided by DARPA or by the performers?
 - DARPA expects that TA2 performers will describe, provide, and evaluate their own data and methods. Additionally, the SIMPLEX IV&V Team may provide separate data for use cases.
- 29. Regarding use cases: how do you define science and engineering domain-based use cases? Can use case focus on social science challenges or must they be more interdisciplinary?

 Use cases are significant challenges in a given domain. See the BAA for more details.
- **30.** To what extent will the quality of user experience factor into the evaluation of resulting tools? Most likely, it will be a factor during program transition. It is not likely to be high priority during the program.
- 31. Are there any domains/use cases that are out of scope for SIMPLEX? No.
- **32.** Could domain X (e.g., wireless network research) be considered as a TA2 domain? Yes, any complex science or engineering domain may be proposed, provided the domain characteristics described in the BAA (heterogeneous data, deep dynamics across scales, functionally inter-related components, and large data) are articulated as central to research leading to new and promising technologies.
- 33. Is human-in-the-loop, human-assisted knowledge building, discovery, learning within the scope of the program?

DARPA is not ruling it out. Please review the BAA for more details. The intention is to substantially reduce the amount of human involvement compared with current workflows.

34. Can you give examples of use-cases in autonomous systems that would be of interest to the program?

Please see the BAA for use case considerations.

- **35.** Are you interested in the traditional multi-INT intelligence domain? *Perhaps. Please read the BAA for domain considerations.*
- **36.** Is social science an area of study appropriate for TA2?

 It is not out of scope. Read the BAA to make sure you are addressing complex scientific problems, and the considerations for domain choice and use cases.
- 37. If you are not interested in new text mining tools, what about automated ways of linking ideas distributed across, literature, domains etc.?
 - Explain the innovation and its importance in your proposal and it will be evaluated.
- 38. Can NLP/text mining be employed as a tool (as opposed to a technical innovation focus)? Yes.
- 39. How do you envision the transition efforts, timeline?

The transition target and timeline will depend upon the maturity of your work. Most likely transition work will start in Phase 2.

40. Will DARPA provide compute / storage infrastructure to host program data and tools?

DARPA will not be providing infrastructure for this program. Such needs should be included in proposers' technical and cost proposals.

41. To what extent does scalability matter to the overall program? There may be practical limits to the amount of time that may be taken for an analysis in order for data mining to be effective.

The program is very much interested in scalability. The practical limits raised in the question should form part of the proposal narrative if such an issue figures prominently in the technical solution proposed.

42. Will there be a formal API to interface TA1/TA2? Will it be fixed across the program or different for each TA1 KR?

Each TA1 team is responsible for defining an API to its Knowledge Representation, in coordination with the needs of the TA2 teams.

43. How big does data have to be? Would behavioral data sets across approximately 1000 patients work for TA2?

Not if it is only behavioral. There is no explicit minimum data volume (as long as the use case is credible), but there are requirements for multiple modalities/scales. See the BAA for further information.

44. What is the role of "enablers" relative to TA1 and TA2?

If this question is related to the slide presented at Proposer's Day, then it is just an illustration.

45. What is the role of the IV&V Team?

As outlined in the BAA, the IV&V Team will assess the usability of SIMPLEX results for the scientific and engineering community outside of the SIMPLEX performer teams through the use of additional domain-appropriate use case challenge problems and/or additional datasets.

46. In terms of third party validations, are you also interested in generalizable metrics for success that account for cost, complexity and other aspects?

In general, cost and complexity are always considerations.

47. Can a prime or collaborator be an international company?

Per Section III.A of the BAA, international companies and universities are acceptable so long as they comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances.

48. Is subcontracting to a National Lab or Federally Funded Research and Development Center (FFRDC) permitted?

Per the BAA, FFRDCs and National Labs are subject to direct competition limitations and must establish their eligibility to propose to Government solicitations by meeting the conditions listed in Section III.A.

49. Will any response be provided to abstracts?

Per Section IV.B.1 of the BAA, DARPA will respond via email as to whether there is interest in the proposed research.

50. Is an executive summary slide required for a proposal abstract submission?

Yes, see Section IV.B.1 of the BAA. A template is provided as Attachment 1 to the announcement on https://www.FBO.gov.

51. What is an official transmittal letter?

An official transmittal letter is a brief, signed statement on your organization letterhead from an authorized person within your organization acknowledging/endorsing the proposed research. There is no template for such a letter.

- **52.** Where should a biosketch/curriculum vitae (CV)/resume be included in my proposal? CVs/resumes are not specifically requested in the BAA; however, a discussion of a proposer's previous accomplishments should be included in Section IV.B.2.a.viii of the Volume I, Technical and Management Proposal. Should you decide to include CVs or resumes, they will count towards the Volume I page limit.
- 53. With regard to the DARPA/BAA Submission system, do individual Principal Investigators need to register at https://baa.darpa.mil/ or should registration be handled through an organizational account?

You may have individual accounts or one organizational account that is used for all submissions - it is at the discretion of your organization. It is recommended that you contact your office of sponsored research (or similar) to decide how submissions should be handled at your organization.

54. What is my DUNS/CAGE/TIN number?

It is likely that an official in your office of sponsored research (or similar) would have access to these numbers and be able to provide them to you. If not, further information regarding these numbers can be found below:

TIN: A Taxpayer Identification Number (TIN) is an identification number used by the Internal Revenue Service (IRS) in the administration of tax laws. It is issued either by the Social Security Administration (SSA) or by the IRS. See http://www.irs.gov/Individuals/International-Taxpayers/Taxpayer-Identification-Numbers-%28TIN%29 for information on requesting a TIN. Note, requests may take 1 business day to 1 month depending on the method (online, fax, mail).

DUNS: The DUNS number is used as the Government's contractor identification code for all procurement-related activities. Go to http://fedgov.dnb.com/webform/index.jsp to request a DUNS number (may take at least one business day).

CAGE: A Commercial And Government Entity (CAGE) Code identifies companies doing or wishing to do business with the Federal Government. If a proposer does not already have a CAGE code, one will be assigned during registration in the System for Award Management (SAM). See www.sam.gov for further information.